



Air Warrior Celebrates 25 Years of Protecting Aviation Warfighters

By Debi Dawson

The Air Warrior ensemble provides the capability for a downed aircrew member to evade the enemy, survive and return to safety. Here, an Army National Guard aviation Soldier wearing the AW ensemble prepares for a flight at Fort Indiantown Gap, Pa.

ARMY PHOTO BY CATHERINE DERAN

The Army is celebrating the 25th anniversary of its aviation life support program this year.

Air Warrior, a part of the Soldier Warrior Project Manager's office with the Program Executive Office - Soldier, will be recognized during an August 25 ceremony the day before the Aviation Life Support Equipment User's Conference at the Von Braun Center in Huntsville, Ala.

Former product managers and employees of the Air Warrior Product Manager's Office and its previous incarnations will gather together with current leaders and staff to mark this momentous occasion.

The Air Warrior has long been designated by the Army as the focal point for all aviation life support equipment (ALSE) life-cycle management.

The program provides helicopter crews with protective and survival

gear, as well as operational support equipment and clothing.

In the Beginning—the 1980s

The origins of today's Air Warrior program can be found in 1983, when two organizations under the Army Materiel Command—the ALSE Manager's Office and the ALSE Development Team—merged to become the Product Manager for Aviation Life Support Equipment (PM-ALSE).

LTC Karl R. Griffin, acting PM, led this small but dedicated band of acquisition professionals on their mission to provide full life-cycle management of ALSE equipment, including the development of new items and readiness responsibilities for fielded ALSE. This new office, in St. Louis, Mo., continued the development of survival radios, laser eye protection, the AH-64A aircrew aviation oriented

mask, and the HGU-56/P helmet, all of which remain key components of today's Air Warrior program.

In the mid-1980s, PM-ALSE grew into two divisions: Logistics and Readiness.

Material development actions included the AH-64 aircrew mask integration, installation of emergency location transmitters in Missouri Army National Guard aircraft, and work on the mini-boat floatation kit.

In 1987, PM-ALSE was assigned to PEO-Combat Aviation, which in 1988, combined with PEO-Combat Support Aviation to form PEO-Aviation.

PM-ALSE moved full steam ahead on projects including the aircrew integrated helmet system, the aircrew microclimate conditioning system (now known as the microclimate cooling system), the M-43 mask, and the inflatable body and head restraint system.



The Electronic Data Manager is an electronic kneeboard that enables crew members to plan missions quickly and react to mission changes while in flight.



The HGU-56/P aircrews integrated helmet system increases mission effectiveness by offering enhanced comfort, improved impact protection, retention and sound attenuation.

ARMY PHOTOS BY CATHERINE DERAN

Moving Forward in the 1990s

Operation Desert Shield was a watershed event for PM-ALSE, as the PM sent many core sets, including helmets, laser eye protection, nuclear-chemical-biological masks, and cooling systems, overseas to deployed aircrews.

Most importantly, the early '90s saw the establishment of the Aircraft Integrated Equipment (AIE) program, the precursor of today's Air Warrior ensemble.

The AIE program identified and developed technologies and equipment that would function as an integrated system for rotary-wing aircraft, provide mission tailoring, and accommodate the anthropometrics of the aircrew population.

A memorandum of agreement was signed by the Army and the Navy in the 3rd quarter of fiscal year 1992 for the joint study and development of AIE.

In 1994, PM-ALSE was "promoted" to a project management office with a civilian manager. John Shannon, the new acting project manager, was responsible for managing 15 programs in a variety of life-cycle phases.

New systems fielded during this time include the SRU-37/P life raft, the helicopter oxygen system, and the HGU-56-P aviator helmet, which significantly increased head protection for aircrews.

Forming a New PM

In 1996, PM-ALSE became the Aircrew Integrated Systems (ACIS) Project Management Office. CPT Bradley Wood became the first assistant product manager for Air Warrior.

The mission of the program was to ensure all personal equipment worn by Army aircrews was effective and fully integrated with mission equipment that was worn, carried by, or kept readily accessible to aircrew members.

Previously, the lack of effective integration resulted in helicopter crewmembers carrying a burdensome volume of personal gear.

Cumbersome personal equipment had the potential to degrade mission effectiveness by increasing fatigue, reducing mobility, limiting visibility, and restricting their ability to safely fly the aircraft and perform mission functions. Air Warrior's goal was to remedy these problems.

The PM-ACIS fashioned a new acquisition strategy for Air Warrior, completing an acquisition program and straw man that provided an ensemble example for prospective bidders for Phase 1 of the restructured program.

On Nov. 6, 1996, the request for proposals for Phase 1 was released.

The goals of Air Warrior were to improve aircrew safety, increase air-

crew and passenger survivability, and enhance aircrew performance in high technology aircraft.

The AW mission needs statement addressed the requirement for fully integrated mission equipment, survivability, and nuclear, biological and chemical protection.

It provided crew member equipment system integration, man-machine interface, weight savings, increased survivability, and higher potential for improved mission performance at an overall reduced cost.

Change is Good—Late '90s to Present

In 1997, the PM moved from St. Louis to its current location at the Redstone Arsenal, Ala.

In 2000, the office reverted from a project manager back to a product manager and integrated into PM Aviation Electronic Systems, then Aviation Electronic Combat.

Major accomplishments during this time were the selection of the initial Air Warrior ensemble that entered engineering and manufacturing development and the decision for the PM to serve as the prime systems integrator for the AW program.

In 2002, the PM moved to PEO Soldier under PM Soldier Warrior as the newly renamed Air Warrior Product Office.

Today, Air Warrior, under the direction of LTC Shannon Womack, product manager, works tirelessly to develop and field integrated Soldier systems that increase freedom of movement at flight controls, increase mobility to safely operate aircraft systems, facilitate entering and exiting the aircraft, and enhance comfort to increase mission duration in full mission-oriented protective posture gear.

Air Warrior also enhances downed crew member survivability in escape and evasion situations.

Equipping Aviation Warriors

More than 15,000 Army aircrew members have been equipped with the Air Warrior ensemble which includes:

- *Improved laser eye protection* against low energy laser threats.
- *The Microclimate Cooling System*, which provides cooling to flight crew members to increase mission duration.
- *The Electronic Data Manager*, giving the aviator the capability to quick-

Recent Air Warrior Evolution



The Air Warrior ensemble has undergone multiple changes as a result of lessons learned from use in war and from advancements in technology and materials.

ly plan missions and react to changes in-flight with a user-friendly, touch-screen, kneeboard computer with GPS, moving map, sunlight readability, electronic messaging, and Blue Force Tracker for situational awareness.

- The *Aircrew Integrated Helmet System*, with enhanced comfort and improved impact protection, retention and sound attenuation.
- The *Aircraft Wireless Intercom System*, which provides secure wireless communication between crew members during high-risk medical evacuation missions.
- The *Cockpit Air Bags System*, which protects against multiple hazards with a crash-activated, inflatable protection system that prevents or reduces injuries and lowers mortality risk.
- The *Army Aircrew Combat Uniform and Fire Resistant Environmental Ensemble*, both managed by PM Soldier Equipment, which enhances aircrew comfort and provides fire protection.

Continuing the Tradition

PM Air Warrior's dedication has not gone unnoticed by the brave men and women flying with the latest equipment. "Any time I need to leave the aircraft, I'll have the proper gear," said SGT Justin Hutchinson with 236th Med. Evac. Co., who in 2007 received the 10,000th Air Warrior system.

Today, the program has become so effective that other U.S. military branches and international allies have invested in the system.

"Air Warrior has a great tradition of 25 years of service to Army aviators," Womack said. "We're continuing that tradition with our focus on Army aviators and building on it with support to the mounted community, as well as other services' and countries' aviators."

Today's Air Warrior is 25 years in the making and deserves every accolade.



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